

Claims

1. Method for heating an exhaust gas catalyst (21) fitted in the exhaust line (20) of an internal combustion engine (10),
5 with

- the air supplied to the combustion chambers of the internal combustion engine (10) being precompressed by means of a blower device (25, 26),

10 - with the valve overlap (VO) and valve lift (VH) of the gas exchange valves being adjustable by means of a device (31),

- the amount of fuel (MFF) required for homogenous operation of the internal combustion engine (10) being determined and injected directly into the combustion chambers of the internal combustion engine,

15 - characterized in that

after detection of a cold-start of the internal combustion engine (10) the valve lift (VH) and the valve overlap (VO) of the gas exchange valves and the position of a throttle valve
20 (16) fitted in the inlet tract (11) of the internal combustion engine (10) are set by a device (31) in such a way that a positive pressure drop occurs between the inlet and outlet sides of the internal combustion engine (10), so that at least part of the air supplied by the blower device (25, 26) is
25 supplied as flushing air directly from the inlet and outlet sides of the internal combustion engine (10) to the exhaust line (20).

2. Method in accordance with claim 1, characterized in that the
30 coolant temperature (TCO) is used as a criterion for a cold-start of the internal combustion engine (10).

3. Method in accordance with claim 1, characterized in that the
coolant temperature (TCO) and the shutdown time of the internal
combustion engine (10) and/or the ambient temperature are used
as a criterion for a cold-start of the internal combustion
5 engine (10).

4. Method in accordance with claim 1, characterized in that the
values for the valve lift (VH) are experimentally determined
and entered in a storage device (24) of a control device (17)
10 regulating and controlling the internal combustion engine (10).

5. Method in accordance with claim 1, characterized in that the
values for the valve overlap (VO) are entered in a storage
device (24) of a control device (17) controlling the internal
15 combustion engine (10), depending on operating parameters of
the internal combustion engine (10).

6. Method in accordance with claim 5, characterized in that the
aspirated air mass (MAF_KGH), the speed (N) and the monolith
20 temperature (T_MON) are used as operating parameters of the
internal combustion engine (10).

7. Method in accordance with claim 1, characterized in that
additionally the ignition angle (IGA) is retarded.